FIG. 1 PRIOR ART

Low swing signaling	A B OUT Ved - Ven	CV <sub>dd</sub> V <sub>s</sub> f	CV <sub>dd</sub> /(V <sub>dd</sub> -V <sub>th</sub> ) <sup>α</sup>
		٨	11
Conventional	A OF B OUT Ved	CV <sub>dd</sub> ²f	CV <sub>dd</sub> /(V <sub>dd</sub> -V <sub>th</sub> )α
	Concept	Power	Delay

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FIG. 2 PRIOR ART

	Conventional	Charge recycling
Initial state	#2 #2 Top Top	+6/2T +6/2T +6/2T +6/2T +6/2T +6/2T
Drive		
Final state		$ \begin{array}{c c}  & \alpha/2 \\  & +\alpha/2 & \\  & +\alpha/2 \\  & +\alpha/2 \end{array} $
		Precycle = Pcony/2

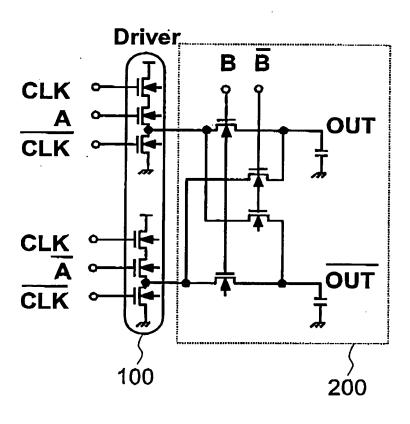
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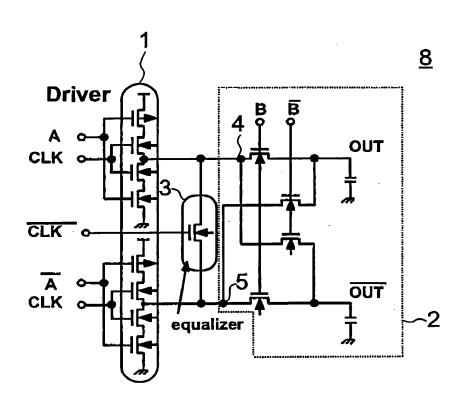
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FIG.3 PRIOR ART



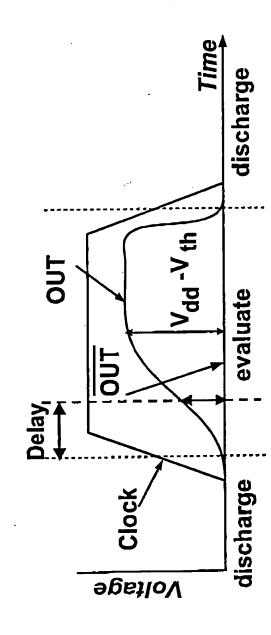
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FIG.4



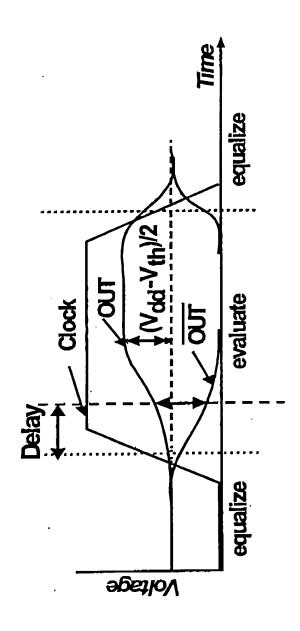
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FIG. 5 PRIOR ART



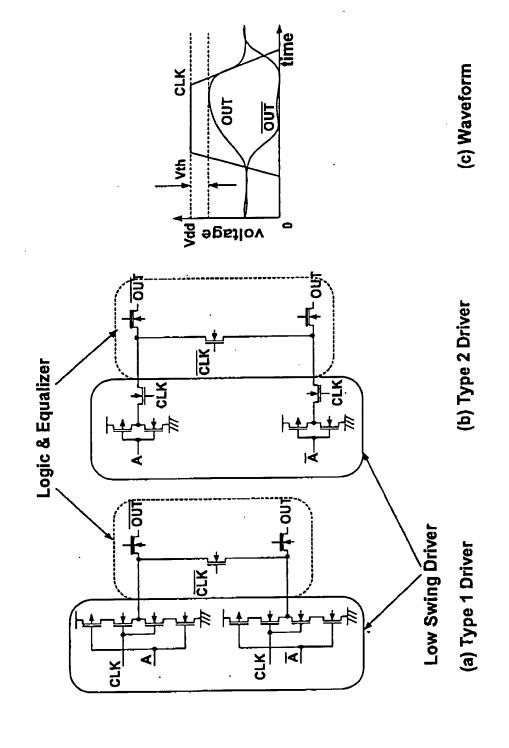
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FIG. 6 PRIOR ART



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F1G. 7



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F16.8

(c) Waveform S,K OUT PILL A egatiov (b) Type 2 Driver SLX X Logic & Equalizer CLK S F Low Swing Driver (a) Type 1 Driver

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F1G. 9

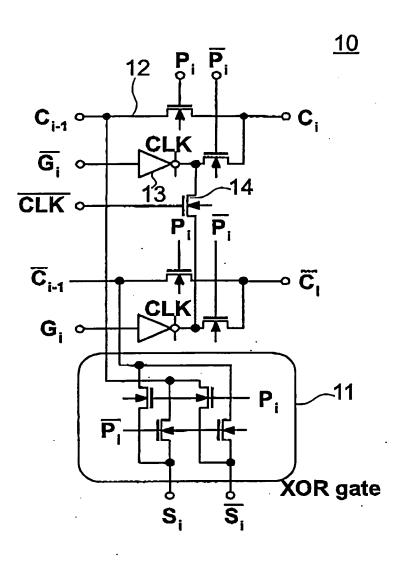
(c) Waveform 옸 등 동 voltage § 0 (b) Type 2 Driver Logic & Equalizer Low Swing Driver (a) Type 1 Driver SK 뇕 A

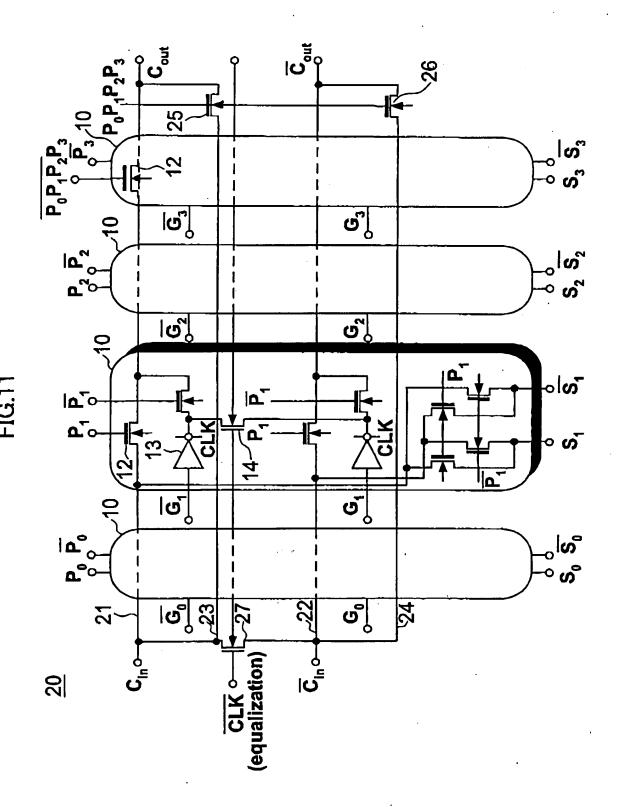
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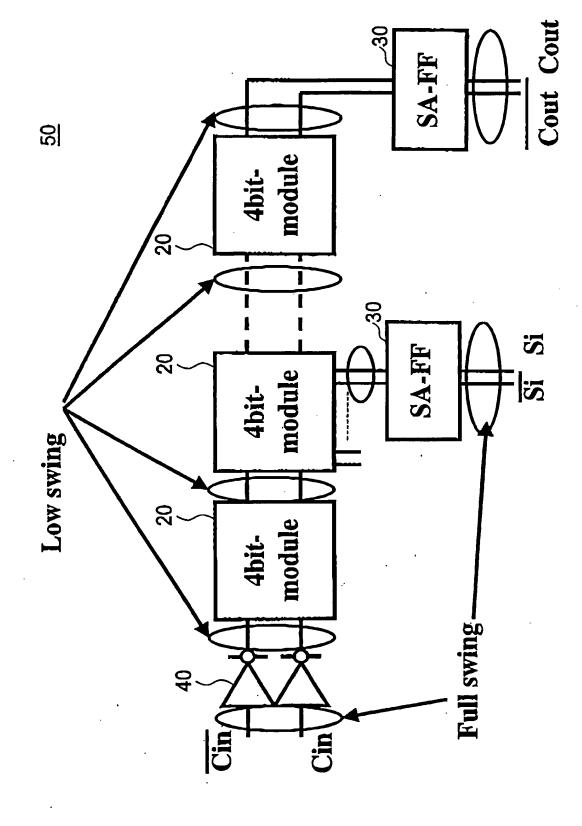
**FIG.10** 





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FIG.12



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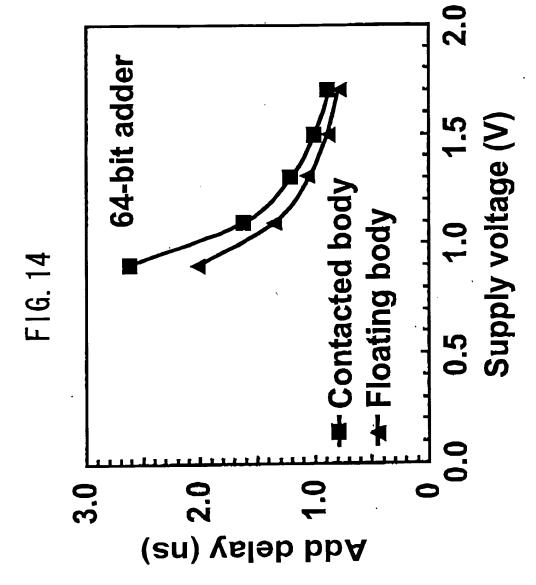
Contacted body 64b adder

Floating body 64b adder

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840 mm

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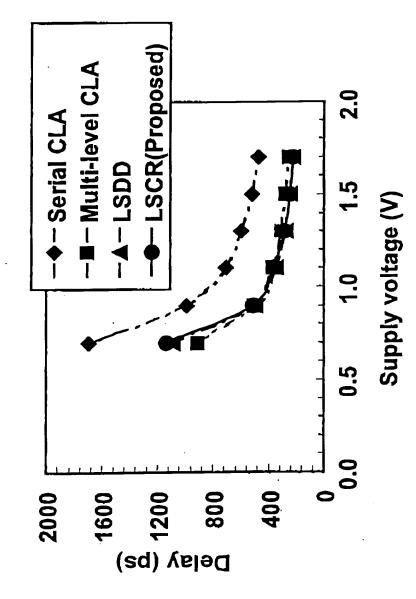
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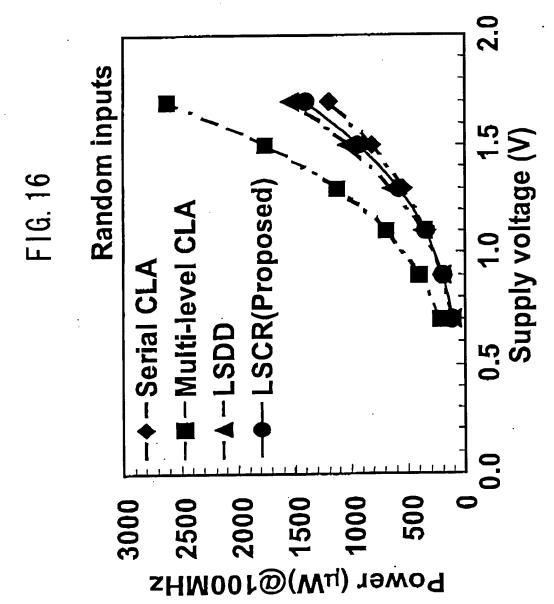
Docket No.:

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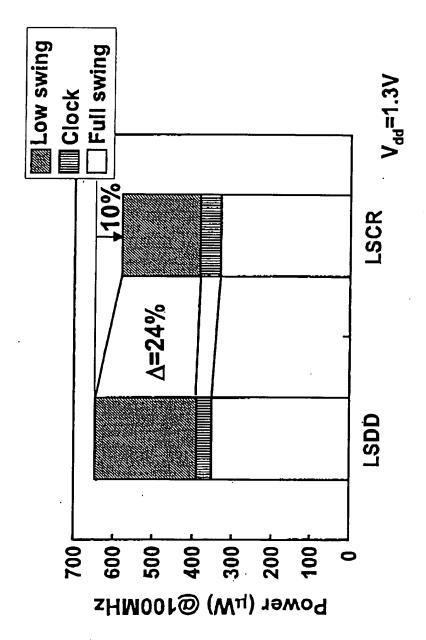


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